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TOWNSEND AND TOWNSEND AND CREW, LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

EXAMINER

BECK, ALEXANDER S

ART UNIT PAPER NUMBER

2629

DATE MAILED: 03/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/025,838

Applicant(s)

KEHLSTADT ET AL.

Examiner

Alexander S. Beck

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2, 5, 6, 9, 12-19 and 29-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2, 5, 6, 9, 13, 14, 16, 17 and 29 is/are allowed.
- 6) ☒ Claim(s) 12, 15, 18, 19, 30 and 31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 20060106.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Response to Request for Continued Examination

1. Acknowledgement is made of the Request for Continued Examination filed by the Applicant on 1/6/06, in which: Claims 12,15 and 18 were amended; Claims 1,3,4,7,8,10,11 and 20-28 were cancelled; and new Claims 30 and 31 were added. **Claims 2,5,6,9,12-19 and 29-31 are currently pending in U.S. Application Serial No. 10/025,838, and an Office Action on the merits follows.**

Information Disclosure Statement

2. The information disclosure statement (IDS) filed on 1/6/06 has been acknowledged and considered by the Examiner. An initialed copy of the PTO-1449 is included in this correspondence.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. **Claims 12 and 30 are rejected under 35 U.S.C. 102(e) as being anticipated by *Shaw et al.* (US 6,587,093 B1, hereinafter SHAW).**

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As to independent **Claim 12**, SHAW teaches/suggests a pointing device in **FIGS. 3,11,12** comprising:

a housing **1100/1200** (SHAW: column 9, lines 54-56);

a pointing sensor **300**, mounted in said housing **1100/1200**, for providing a pointing signal (SHAW: column 4, lines 35-53);

a plurality of discrete electrodes **1102/1204** mounted on said housing **1100/1200** to detect movement of a finger, wherein at least first and second electrodes are electrically connected, said electrodes **1102/1204** forming a solid state roller with a single column of electrodes **1102/1204**, which is not part of a touchpad array (SHAW: column 9, lines 53-67; column 11, lines 24-30);

a circuit **1104/1208**, connected to said electrodes **1102/1204**, for detecting contact of said finger with said electrodes **1102/1204** (SHAW: column 10, lines 17-27).

As to **Claim 30**, SHAW teaches/suggests in a particular embodiment wherein said plurality of electrodes **1102/1204** includes no more than six electrodes, including said first and second electrodes (see **FIGS. 11,12** which illustrate five (5) electrodes)

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

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claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Shaw et al.* (US 6,587,093 B1).

As to Claim 31, SHAW teaches/suggests a plurality of discrete electrodes 1102/1204, as detailed above in the paragraphs regarding independent Claim 12, and places no limitation on the number of electrodes (SHAW: column 9, lines 53-67; column 11, lines 24-30).

SHAW does not disclose expressly wherein said plurality of electrodes includes only two electrodes, said first and second electrodes.

However, it has been held that omission of an element and its function in a combination is an obvious expedient if the remaining elements perform the same functions as before. In re Karlson, 136 USPQ 184 (CCPA 1963); In re Nelson, 40 CCPA 708, 198 F.2d 837, 95 USPQ 82; In re Eliot, 22 CCPA 1088, 76 f.2d 309, 25 USPQ 111. Furthermore, it has been held that omission of an element and its function where not needed is obvious. Ex parte Rainu, 168 USPQ 375 (PTO Bd. Of App. 1969).

Thus, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the teachings of SHAW such that the plurality of discrete electrodes were omitted, with the exception of the first and second electrodes, leaving only two electrodes (wherein it would have been apparent to a person of ordinary skill in the art that the

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pointing device of SHAW would operate with only two electrodes since motion of a finger along an axis can be measured across two electrodes).

The suggestion/motivation for doing so would have been to provide a touch sensitive surface for scrolling in a situation during which various design parameters are required such as, but not limited to: production costs, hardware availability, maximum touch sensitive surface length and mouse size.

7. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Shaw et al.* (US 6,587,093 B1) in view of *Gillick et al.* (US 5,530,455 A, hereinafter GILLICK)

As to independent Claim 15, SHAW teaches/suggests a mouse in FIGS. 3,11,12 comprising:

a housing 1100/1200 for supporting a user's hand (SHAW: column 9, lines 54-56);

first and second buttons 1108 mounted on said housing 1100/1200 (SHAW: column 9, lines 58-60);

a pointing sensor 300, mounted in said housing 1100/1200, for providing a pointing signal (SHAW: column 4, lines 35-53);

a stationary scrolling sensor 1102/1204, mounted on said housing 1100/1200 between said buttons 1108, said scrolling sensor 1102/1204 providing a scrolling command in response to a movement of a user's finger across said stationary sensor 1102/1204 (SHAW: column 9, lines 53-67; column 10, lines 17-27; column 11, lines 24-30).

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SHAW does not disclose expressly continuing to provide said scrolling command in response to said finger reaching one end of said stationary scrolling sensor without lifting off, such that a display continues to scroll without additional movement of said finger.

GILLICK teaches/suggests a mouse in FIG. 1 comprising a scrolling mechanism 24, in combination with a scrolling button 25, that continues to provide a scrolling command in response to a finger reaching one end of the scrolling mechanism 24 without lifting off, such that a display continues to scroll without additional movement of the finger (GILLICK: column 5, lines 1-16).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the teachings of SHAW such that the mouse continued to provide a scrolling command such that the display continues to scroll without additional movement of a finger, as taught/suggested by GILLICK.

The suggestion/motivation for doing so would have been to simplify and accelerate sub-functions performed by a mouse, such as a scrolling function (GILLICK: column 2, lines 21-24).

8. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Shaw et al.* (US 6,587,093 B1) in view of *Donohue et al.* (US 6,262,717 B1, hereinafter DONOHUE).

As to Claims 18 and 19, Shaw teaches/suggests a mouse in FIGS. 3,11 comprising:
a housing 1100/1200 for supporting a user's hand (SHAW: column 9, lines 54-56);

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a pointing sensor **300**, mounted in said housing **1100/1200**, for providing a pointing signal (SHAW: column 4, lines 35-53); and

a touch sensitive surface scrolling activator **1102/1204** for providing a scrolling signal (SHAW: column 9, lines 53-67; column 10, lines 17-27).

SHAW does not disclose expressly a speaker, mounted in said mouse, for emanating sounds in response to said scrolling signal, said sounds simulating the sounds emanated by a mechanical roller, such that click sounds are generated when said scrolling signal causes a document scroll by at least one line.

DONOHUE teaches/suggests a touch sensitive surface **26** in FIG. 4 comprising a speaker **71** connected directly under the touch sensitive surface **26** for emitting auditory feedback to a user to confirm a touchdown event (DONOHUE: column 9, line 60 – column 10, line 4). Moreover, DONOHUE suggests the inclusion of a speaker that provides an auditory feedback to a user is advantageous over the prior art in that prior art touch sensitive surfaces does not provide the reassuring mechanical “click” sound accompanying mechanical buttons (DONOHUE: column 12, lines 41-48). For this reason mechanical buttons are not needed on the configuration of DONOHUE (DONOHUE: column 12, lines 48-51), thus suggesting that the auditory feedback emitted from the speaker **71** emulates the “click” sound accompanying mechanical buttons to overcome the deficiencies of the prior art.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the teachings of SHAW such that a speaker was connected under the touch sensitive surface **1102/1204** for emulating a “click” sound accompanying mechanical

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buttons, as taught/suggested by DONOHUE. As would have been apparent to one of ordinary skill in the art, and as noted by the Applicant on page 9 of the RCE filed on 1/6/06, normal mechanical scroll wheels would have a ratchet built in that would mechanically produce a clicking sound (corresponding to a rotation of the scroll wheel that causes a document to scroll by at least one line in certain applications). Therefore, it would have been obvious to a person of ordinary skill in the art to emanate sounds in response to a scrolling signal, the sounds simulating the sounds emanated by a mechanical roller, so as to emulate a mechanical roller.

The suggestion/motivation for doing so would have been to provide a reassuring mechanical "click" sound accompanying mechanical devices (DONOHUE: column 12, lines 41-51).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Alexander S. Beck** whose telephone number is **(571) 272-7765**. The examiner can normally be reached on M-F, 8AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Sumati Lefkowitz** can be reached on **(571) 272-3638**. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

asb
3/7/06



SUMATI LEFKOWITZ
SUPERVISORY PATENT EXAMINER